

112074-55 EWT(1) T/EWA(c) LJP(c)

ACC NR: AT6001415

SOURCE CODE: UR/3180/64/009/000/0275/0277

CH  
CH

AUTHOR: Lagunov, V.A.

ORG: None

TITLE: A new method for the study of forces during impact by high-speed motion picture photography

SOURCE: AN SSSR. Komissiya po nauchnoy fotografii i kinematografii. Uspekhi nauchnoy fotografii, v. 9, 1964. Vysokoskorostnaya fotografiya i kinematografiya (High-speed photography and cinematography), 275-277 and insert facing page 273

TOPIC TAGS: high speed photography, impact range, impact test motion picture photography

ABSTRACT: In the past, the forces resisting the penetration of objects were studied by high-speed photography using the standard kinematic approach which determines the negative acceleration of the incident object. The present article describes a new method for the determination of instantaneous braking forces. It also utilizes high-speed photographs but the processing of the results takes into account the wave character of the propagation of elastic perturbations through solids. This new method offers a better resolving power in time. The author outlines the pertinent theory, and presents the diagram of the circuit producing and delaying synchronization pulses, and a diagram showing the experimental time-distance curve describing the impact of a rod with a conical head moving at an impact velocity of 614 m/sec, and an example of data processing by the new method. The results concerning the braking

Card 1/2

L 12074-66

ACC NR: AT6001415

forces are in good agreement with data found in literature. Orig. art. has: 1 formula and  
3 figures.

SUB CODE: 14, 11, 20 / SUBM DATE: none / ORIG REF: 002

AC

Card 2/2

LAGUNOV, V.N.

LAGUNOV, V.N.

Infinitely differentiable function not having star-shaped level  
lines in the neighborhood of isolated minimum. Sbor.nauch.trud.  
TISI 1:124-130 '56. (MIRA 10:12)

(Functions)

LAGUNOV, V.N.

C-2

USSR/Nuclear Physics - Instruments and Installations.  
Methods of Measurement and Investigation.

Abs Jour : Referat Zhur - Fizika, No 1, 1958, 238

Author : Lagunov, V.N., Ovchinnikov, Ye.P., Rusanov, V.D.

Inst :

Title : Experimental Investigation of the Effectiveness of Injec-  
tion in the Betatron.

Orig Pub : Atomn. energiya, 1957, 2, No 6, 525-532

Abstract : Description of experiments, performed with the synchro-  
tron of the Physics Institute of the Academy of Sciences,  
USSR (electron energy 30 Mev), for the purpose of explai-  
ning the physical laws of the capture of electrons into  
the betatron acceleration mode. A detailed examination  
is made of the influence of the injection of alternating  
magnetic and electric fields on the effectiveness of in-  
jection, this field being artificially created inside the  
accelerator chamber during the instant corresponding to

Card 1/3

USSR/Nuclear Physics - Instruments and Installations.  
Methods of Measurement and Investigation

C-2

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 238

the electron admission. It is shown that the additional magnetic field, whose action can be compared with the effect of electric fields on the particle (Kerst hypothesis), as well as the field of the artificial space charge, can strongly increase the intensity of gamma radiation at small emission currents. Qualitative estimates, however, lead to the conclusion that the effect of induction compression, in accordance with the Kerst hypothesis, should be small compared with the Coulomb interaction in the normal operating mode of the betatron. It is also shown that, in general, similar artificial methods for increasing the intensity are ineffective. A hypothesis is proposed that only methods that permit a substantial change in the stabilizing forces of the magnetic field can lead to a considerable increase in the yield, since most betatrons operate in a mode close to the "limiting current"

Card 2/3

LAGUNOV, V.

85-58-6-50/43

AUTHORS: Tkachev, V., Vartanov, V., Vasilyan, I., Lagunov, V.,  
Lobzhanidze, Z., Guruli, M. (Tbilisi)

TITLE: Tbilisi Model-airplane Builders Need a Field for Flying Cord-  
controlled Models (Tbilisskim aviamodelistam nuzhen kortodrom)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 6, p 24 (USSR)

ABSTRACT: The authors urge the construction of a field for flying  
cord-controlled airplane models in Tbilisi.

1. Airplanes—Model building

Card 1/1

16(1)

AUTHOR:

Lagunov, V.N.

SOV/20-127-6-6/51

TITLE:

On the Highest Possible Sphere Imbedded in a Given Closed Surface

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 6, pp 1167-1169 (USSR)

ABSTRACT: Let  $F_R$  be the class of two times continuously differentiable closed surfaces  $F$  in the three-dimensional space, the principal radii of curvature of which are not smaller than  $R$  in all surface points. Let  $T(F)$  be the body bounded by  $F$ . The sphere  $K$  is imbedded in the surface  $F$  if  $K \subset T(F)$ .  
Theorem: In every surface of the class  $F_R$  a sphere of radius  $R(\frac{2}{\sqrt{3}} - 1)$  can be imbedded. To every  $\epsilon > 0$  there exists an  $F \in F_E$  in which no sphere of radius  $R(\frac{2}{\sqrt{3}} - 1) + \epsilon$  can be imbedded.ASSOCIATION: Novosibirskiy institut inzhenerov vodnogo transporta (Novosibirsk Institute of Engineers of Water Transportation)  
PRESENTED: April 29, 1959, by S.L. Sobolev, Academician  
SUBMITTED: March 23, 1959

Card 1/1

LAGUNOV, V. N., Cand Phys-Math Sci -- (diss) "Largest sphere set in rough surfacing." Novosibirsk, 1960. 8 pp; (Academy of Sciences USSR, Siberian Division, Joint Academic Council for Physics-Mathematics and for Technical Sciences); 180 copies; price not given; (KL, 22-60, 131)

LAGUNOV, V.N.

Largest possible sphere imbedded in a close surface. Sib. mat.  
zhur. 1 no.2:205-232 Jl-Ag '60. (MIRA 13:12)  
(Geometry, Differential)

LAGUNOV, V.N.

Largest possible sphere embedded in a closed surface. Part 2.  
Sib. mat. zhur. 2 no.6:874-883 N-D '61. (MIRA 15:7)  
(Convex domains)

LAGUNOV, V.N.; FET, A.I.

Extremum problems for surfaces of a given topological type.  
Part 1. Sib.mat.zhur. 4 no.1:145-176 Ja-F '63. (MIRA 16:2)  
(Topology)

LAGUNOV, V.N.; FET, A.I.

Extremum problems for surfaces of a prescribed topological type.  
Part 2. Sib. mat. zhur. 6 no.5:1026-1036 S-0 '65. (MIRA 18:10)

L 33327-66 EWT(m)/FWP(j) RM

ACC NR: AP6012108

SOURCE CODE: UR/0413/66/000/007/0014/0014

INVENTOR: Sokolovskiy, M. A.; Ayrapetyan, S. G.; Lagunova, V. N.10  
B

ORG: none

TITLE: Preparation of N-phenyl-Beta-aminoethyl Beta-chloroethylphenylphosphinate  
Class 12, No. 180192

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 14

TOPIC TAGS: phosphinate ester, organophosphorus compound

ABSTRACT: An Author Certificate has been issued describing a method of preparing N-phenyl-Beta-aminoethyl Beta-chloroethyl phenylphosphinate. N-phenylethanalamine is treated with Beta-chloroethylphenyl phosphinoyl chloride in dichloroethane with heating. The solvent is subsequently removed by distillation. The reaction product, N-phenyl-Beta-aminoethyl Beta-chloroethylphenylphosphinic acid hydrochloride is dried, treated with sodium ethoxide in absolute ethanol, filtered, and reduced by evaporation

[LD]

SUB CODE: 07/ SUBM DATE: 19Jun64

Card 1/1 ULR

UDC: 547.26'.118.07

UDC: 678.699-678.85

L 22191-66 EWP(j)/EWT(m)/ETC(m)-6/T RM/WW

ACC NR: AP6012109

SOURCE CODE: UR/0413/66/000/007/0015/0015

INVENTOR: Sokolovskiy, M. A.; Ayrapetyan, S. G.; Lagunova, V. N.

ORG: none

TITLE: Preparative method for a phosphorus-containing polyester. Class 12,  
No. 180193 ✓

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 15

TOPIC TAGS: polyester, phosphorus containing polyester, fire resistant material

ABSTRACT: An Author Certificate has been issued for a preparative method for a phosphorus-containing polyester, involving the thermal homopolycondensation of a phenylphosphonic ester, viz., N-phenyl-2-aminoethyl [(2-chloroethyl)phenyl]phosphonate

[SM]

C7/  
SUB CODE: 11/ SUBM DATE: 19Jun64/ ATD PRESS: 4/224

Card 1/1 net

UDC: 547.26'118.07.678.699:678.85

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000928420013-2

LAGUNOV, V.V.

Operating large kilns. TSegment 28 no.18-19 N-D '62. (MIRA 15:12)  
(Kilns, Rotary)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000928420013-2"

L 18937-63

EWT(1)/FCC(w)/FS(v)-2/BDS/ES(v) AFFTC/ESD-3/APGC Pe-4/

Pg-4/Po-4/Pq-4 GW

ACCESSION NR: AP3004214

S/0018/63/000/007/0083/0085

AUTHOR: Lagunov, Ye. (Captain)

75

TITLE: Determination of the coordinates of objects

SOURCE: Voyenny\*y vestnik, no. 7, 1963, 83-85

TOPIC TAGS: PUO-3, sound ranging base

ABSTRACT: Using the PUO-3, the author developed a new method of determining the coordinates of sounding objects which makes it possible to reduce the operation time by 2-3 times. The whole complex of the operations consists in the calculation of the elements of the sound-ranging sub bases, preparation of the plotting board and the determination of the coordinates from the data yielded from the processing of the readings of the sound-ranging tapes. The application of the method described in this article makes it possible to increase the accuracy of the calculation of sound-ranging sub-base elements. It is no longer necessary to plot the normal line on the plotting board, plot points on it, and draw the plotting arc. This reduces the probability that

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L 18937-63

ACCESSION NR: AP3004214

errors will appear, and increases the accuracy of the preparation of the plotting board. Orig. art. has: 2 formulas and 1 table.

ASSOCIATION: Soviet Army

SUBMITTED: 00

DATE ACQ: 07Aug63

ENCL: 00

SUB CODE: CG

NO REF SOV: 000

OTHER: 000

Card 2/2

BELYANCHIKOV, V.N., inzh.; NOVIKOV, I.V., inzh.; ZAYTSEV, I.Ye.,  
inzh.; AKIL'YEV, S.A., inzh.; BELKIN, V A., inzh.;  
POCHKINA, L.A., inzh.; VASIL'YEV, O.A., inzh.; Prinimali  
uchastiye: KOPEYKINA, O.P.; SMIRNOVA, A.N.; BELKINA, S.S.;  
SHILINA, Ye.I.; LAGUNOV, Ye.N.; REZNIK, S.Z.; BRISMAN,  
B.I.; KUZ'MINYKH, A. [redacted] ieva; SHTEKHOVA, R.Ye.,  
~~telchm~~ red.

[Operational life of parts of excavating, construction,  
and road machinery; a reference catalog] Sroki sluzhby de-  
talei ekskavatorov, stroitel'nykh i dorozhnykh mashin.  
katalog spravochnik. Izd.2., perer. i dop. Moskva, Gó-  
lesbumizdat. Pt.2. [Road, construction machinery, and  
machinery for manufacturing building materials] Dorozhnye,  
stroitel'nye mashiny i mashiny dlia proizvodstva stroitel'-  
nykh materialov. 1963. 306 p. (MIRA 17:4)

1. "Stroitiyazhmashzapchast", Tekhnicheskaya kontra. Kon-  
struktorskoye byuro.

NIKITIN, B.M.; LAGUNOV, Yu.V.

Methods of measuring the electric conductivity of molten slags.  
Nauch. trudy DMI no. 51: 54-63 '63. (MIRA 17:10)

KHITRIK, S.I.; GASIK, M.I.; LEYBOVICH, R.Ye.; LAGUNOV, Yu.V.; KUCHER, A.G.

Specific heat of carbonizing an electrode mixture. Stal'  
25 no.2:135-136 F '65. (MIRA 18:3)

GASYUK, G.N.; TSVETKOVA, L.M.; Prinimali uchastiye: SHVETS, A.T.; LAGUNOVA, G.A.

Effect of ultrasonic waves on the microflora in the process of grape  
juice production. Trudy MNIIPP 2:75-80 '62. (MIRA 16:4)  
(Ultrasonic waves—Industrial applications)  
(Wine and wine making—Microbiology)

LAGUNOVA, I

G

"Tumor-Like Osteomyelitis of the Femur," Sov. Med., No.9, 1949.  
M.M., Gen. Sci. Res. Inst. Roentgenology & Radiology V.M. Molotov, -cl949-

LAGUNOVA, I. G.

"Amputation Stumps of Limbs (Clinico-Radiological and Anatomico Histological Parallel)", pages 99, Medgiz, Moscow, 1950

LAGUNOVA, I.G., kandidat meditsinskikh nauk.

Intraosseal calcifications. Vest.rent.i rad. no.5:54-58 S-O '53.  
(MIRA 7:1)

1. Iz rentgenodiagnosticheskogo otdela (zaveduyushchiy - professor  
I.A.Shekhter) Tsentral'nogo nauchno-issledovatel'skogo instituta  
rentgenologii i radiologii im. V.M.Molotova (direktor - professor  
P.D.Yal'tsev).  
(Calcification) (Bones)

LAGUNOVA, I.G.

Report on the work of the White Russian Scientific Society of  
Roentgenologists and Radiologists for 1952 (Minsk). Vest.rent.i  
rad. no.5:94 S-0 '53. (MLRA 7:1)  
(White Russia--X rays) (X rays--White Russia)

LAGUNOVA, Irina G.

Dir., Molotov Cen. Res. Inst. of Roentgenology and Radiology, "Invisible  
Rays in Action." (Entire article enclosed in dossier)  
Soviet Union, No. 8, (54), Aug 1954

LAGUNOVA, I.G.(Docent)

"Application of Radioactive Substances in Medicine in the USSR," Mediteinskiy  
Rebotnik, Vol.18, No.20, Moscow, 1 Mar 55

Director Inst. of Roentgenology and Radiology im. V.M.Molotov

Translation W-31371, 21 Jul 55

LAGUNOVA, I.G.

Second International Congress on Fluorography held in Paris. Vest,  
rent. i rad. 31 no.6:81-87 N-D '56. (MLRA 10:2)  
(LUNGS--RADIOGRAPHY)

LAGUNOVA, I.G.

LAGUNOVA, I.G., dots.

Significance of tomography in the diagnosis of lung cancer [with  
summary in English]. Vop.onk. 3 no.4:418-422 '57. (MIRA 10:11)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo instituta rentgeno-  
logii i radiologii (dir. - dots. I.G.Lagunova). Adres avtora:  
Moskva, Zh-28, Solyanka, d.7, Institut rentgenologii i radiologii.  
(LUNG NEOPLASMS, diagnosis,  
tomography (Rus))

LAGUNOVA, I. G.

25-11-22/28

AUTHOR: None Given

TITLE: The Future Begins Today (Budushcheye nachinayetsya segodnya)

PERIODICAL: Nauka i Zhizn', 1957, # 11, pp 49-54 (USSR)

ABSTRACT: The article was compiled from essays by different scientists. Academician P.A.Rebinder outlines in his essay the possibilities for creating new building material based on future scientific achievements, especially in the field of physical chemistry.

According to Dotsent I.G.Lagunova the future task of medical science will not only consist in treatment of diseases but will concentrate on the prolongation of life. In the future many diseases may be eliminated by applying physical and chemical discoveries in the medical field, for instance, the use of isotopes for regulating the functioning of glands.

Academician D.I.Shcherbakov deals with the unlimited mineral resources and future methods of exploitation. Another future project in the agricultural field is the use of deserts and tundra zones for agriculture.

Professor V.P.Zenkovich gives an account of the huge resources of the seas and oceans which will be exploited in future decades. For instance, oil will be produced from the sea bottom; extensive fishing grounds will be created by feeding fish in bays or

Card 1/2

The Future Begins Today

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R000928420013-2"

Professor G.I.Babat describes a fictional quantum-rocket in which nuclear fuel will be transformed into electro-magnetic radiation.

There are nine sketches.

AVAILABLE: Library of Congress

Card 2/2

*LAGUNOVA, I.G.*  
*LAGUNOVA, I.O.*

Achievements of Soviet roentgenology; on the 40th anniversary of the October Revolution. Vest. rent. i rad. 32 no.5:3-9 S-0 '57.

(MIRA 11:2)

1. Direktor Gosudarstvennogo nauchno-issledovatel'skogo instituta rentgenologii i radiologii, glavnyy rentgenolog Ministerstva zdravookhraneniya RSFSR.

(ROENTGENOLOGY,  
in Russia (Rus))

~~LAGUNOVA, I.G., dots.; BELETSKIY, G.N., dots.; POMEL'TSOV, K.V., prof.~~  
~~PODLYASHUK, L.D., prof.~~

On the 50th birthday of Professor Il'ia Aleksandrovich Shekter.  
Vest. rent. i rad. 32 no.6:89 N-D '57. (MIRA 11:3)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut rentgenologii i radiologii (for Lagunova). 2. Moskovskiy meditsinskiy stomatologicheskiy institut (for Beletskiy). 3. Vserossiyskoye obshchestvo rentgenologov i radiologov (for Pomel'tsev). 4. Moskovskoye obshchestvo rentgenologov i radiologov (for Podlyashuk).

(SHEKTER, IL'IA ALEKSANDROVICH, 1907-)

LAGUNOVA, I.

ZENKOVICH, V., prof. doktor geogr. nauk; LAGUNOVA, I.; PETROVSKIY, Yu.  
zhurnalist; VERD'YE, Zhan; PETROV, S., inzh.; NAUMOV, S., nauchnyy  
sotrudnik; IOFFE, V., inzh.; DROZDOV, V., inzh.

People of new specialties. Znan. sila 32 no.11:32-34 N '57.

(MLRA 10:11)

1. Direktor Instituta rentgenologii i radiologii Ministerstva zdravo-  
okhraneniya (for Lagunova)

(Science)

LAGUNOVA, I.G., Doc Med Sci -- (diss) "Data <sup>to</sup> the problem of primary tumors of the skeleton. (Clinico-Roentgenol <sup>original</sup> Observations). Mos, 1958.  
29 pp (Min of Health USSR. Central Inst for the Advanced Training of Physicians), 200 copies (KL , 46-58, 142)

-5-  
*[Handwritten mark]*

LAGUNOVA, I.G., dots.

Degenerative and dystrophic processes in the spine (spondylosis  
and spondylarthrosis). Trudy TSentr. nauch.-issl. inst. rentg.  
1 rad. 10:131-139 '59. (MIRA 12:9)  
(SPINE--DISEASES)

LAGUNOVA, I.G.

Some research results and prospects in the field of clinical radiology.  
Med. rad. 5 no.10:3-9 '60. (MIRA 14:2)  
(RADIOLOGY, MEDICAL)

LAGUNOVA, I.G., prof.

Boris IL'ich Brium; obituary. Vest. rent. i rad. 35 no. 5:75  
(MIRA 14:2)  
My-Je '60.  
(BRIUM, BORIS IL'ICH, 1903-1960)

ZEDGENIDZE, G.A., prof. otv. red.; BENTSIANOVA, V.M., dotsent, red.; VIKTURINA, V.P., kand. med. nauk, red.; ZUBCHUK, N.V., kand. med. nauk, red.; LAGUNOVA, I.I., prof., red.; POBEDINSKIY, M.N., prof., red.; REYNBERG, S.A., zasluzhennyy deyatel' nauki, prof., red.; ROZENSHTRAUKH, L.S., doktor med. nauk, red.; ROKHLIN, D.G., prof., red.; SOKOLOV, Yu.N., prof., red.; FANARDZHYAN, V.A., red.; SHEKHTER, I.A., prof., red.; SHTERN, B.M., prof.. red.; SHTERN, V.N.. prof., red.; ZUYEVA, N.K., tekhn. red.

[Transactions of the Seventh All-Union Congress of Roentgenologists and Radiologists] Trudy Vsesoiuznogo s"ezda rentgenologov i radiologov, 7th, Saratov, 1958. Moskva, Gos. izd-vo med. lit-ry Medgiz, 1961. 317 p. (MIRA 14:7)

1. Vsesoyuznyy s"ezd rentgenologov i radiologov, 7th, Saratov, 1958.
2. Deystvitel'nyy chlen AMN SSSR (for Zedgenidze).
3. Chleny-korrespondenty AMN SSSR (for Rokhlin, Fanardzhyan).
4. Akademiya nauk Armyanskoy SSR (for Fanardzhyan)

(RADIOLOGY, MEDICAL)

LAGUNOVA, I.G.

All-Russian Congress of Roentgenologists and Radiologists. Zdrav.  
Ros. Feder. 5 no.11:46-47 N '61. (MIRA 14:10)  
(RADIOLOGY, MEDICAL CONGRESSES)

LAGUNOVA, I. G., egyetemi tanar

Some technical problems in clinical roentgenology and radiology.  
Magy radiol. 13 no.6:321-323 N '61.

1. Az Orvosi Rontgen es Radiologiai Intezet igazgatoja es Az Orosz  
Federativ Szocialista Koztarsasag Allami Tudomanyos Kutatointezete,  
Moszkva.

(RADIOGRAPHY) (RADIOLOGY)

LAGUNOVA, I.G., prof.

First Far East Scientific Conference of Roentgenologists and  
Radiologists. Zdrav. Ros. Feder. 5 no.12:41 D '61. (MIRA 15:1)  
(RADIOLOGISTS CONGRESSES)

LAGUNOVA, Irina Georgiyevna; BENTSIANOVA, V.M., red.; PARAKHINA,  
N.L., tekhn. red.

[Tumors of the skeleton]Opukholi skeleta. Moskva, Medgiz,  
1962. 365 p. (MIRA 15:9)  
(BONES—TUMORS)

LAGUNOVA, I. G.

Some technical problems of clinical radiology. Acta chir. Acad. Sci.  
Hung. 3 no.1-iv '62.

(RADIOLOGY)

LAGUNOVA, I.G.; KOZLOVA, A.V.; PERVOVA, A.K.; RIMMAN, A.F.; DMOKHOVSKIY,  
V.V.; PARSHIN, I.M.

Rational system of planning a department and protection during work  
with closed radioactive preparations. Med.rad. 7 no.6:69-76 Je '62.  
(MIRA 15:8)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo rentgeno-radio-  
logicheskogo instituta Ministerstva zdravookhraneniya RSFSR i  
Moskovskoy gorodskoy bol'nitsy No.40.  
(RADIOLOGY, MEDICAL--SAFETY MEASURES)

LAGUNOVA, I. G.; OBUKHOV, V. A.; KHURAMOVICH, I. N.

The problem of rational method of splenoportography combined with  
splenomanometry.

Program for Medical Society of J. E. Purkyne, Czech.  
Radiology Congress, Karlovy Vary, Czech. 10-15 June '63

LAGUNOVA, I.G., professor

Some technical questions relating to clinical roentgenology  
and radiology. Periodica polytechn electr 6 no.1:L-IV'62.

1. Gosudarstvennyy nauchno-issledovatel'skiy rentgenoradiologicheskiy institut MZ RSFSR, Moskva.

LAGUNOVA, I.G., prof.

Giant-cell tumors and their characteristics. *Khirurgiia* 39  
no.5:6-11 My '63. (MIRA 17:1)

1. Iz Nauchno-issledovatel'skogo rentgeno-radiologicheskogo  
instituta Ministerstva zdravookhraneniya RSFSR.

LAGUNOVA, I.G., prof.

Sacrococcygeal chordomas. Vest. khir. 91 no.8:75-79 Ag'63  
(MIRA 17:3)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya RSFSR, Moskva. Adres avtora: Moskva Zh-28, Solyanka, d.7, Rentgeno-radiologicheskiy institut.

LAGUNOVA, I.G. (Moskva); GORDON, V.I. (Moskva)

Organizational problems in using the betatron in clinical treatment. Trudy TSentr. nauch.-issl. inst. rentg. i rad. ll no.1:120-126 '64.  
(MIRA 18:11)

LAGUNOVA, I.G. (Moskva); ZVEREV, M.P. (Moskva)

Methodology of radiotherapy of sarcomas of the long tubular bones by means of 25 Mev. betatron. Trudy TSentr. nauch.-issl. inst. rentg. i rad. 11 no.1:165-173 '64.

(MIRA 18:11)

LAGUNOV, I.G., prof., otv. red.; KAGAN, Ye.M., prof., zam. otv. red.; VIKTURINA, V.P., kand. med. nauk, red.; TSYBUL'SKIY, B.A., prof., red.; YAKHNICH, I.M., prof., red.

[40 years of the State Scientific Research Institute of X-ray Radiology of the Ministry of Public Health of the R.S.F.S.R., 1924-1964] 40 let Gosudarstvennogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta MZ RSFSR, 1924-1964. Moskva, GNIRRI MZ RSFSR, 1964. 347 p.  
(MIRA 18:1)

BENTSIANOVA, V.M., dots., red.; VIKTURINA, V.P., kand. med.  
nauk, red.; KAGAN, Ye.M., prof., red.; LAGUNOVA, I.G.,  
prof., red.; PERESLEGIN, I.A., doktor med. nauk, red.;  
ROZENSHTRAUKH, L.S., prof., red.

[Materials of the enlarged plenum of the Board of the  
All-Union Scientific Society of Roentgenologists and  
Radiologists and of the out-of-town session of the Sci-  
entific Council of the State Scientific and Research  
Institute of X-Ray Radiology of the Ministry of Public  
Health of the R.S.F.S.R., held December 23 - 26, 1963,  
in Rostov-on-Don] Materialy rasshirennogo plenuma Prav-  
leniya Vserossiiskogo nauchnogo obshchestva rentgeno-  
logov i radiologov i vyezdnoi sessii Uchenogo soveta  
Gosudarstvennogo nauchno-issledovatel'skogo rentgeno-  
radiologicheskogo instituta MZ RSFSR 23-26 dekabria 1963.  
goda, g.Rostov-na-Donu, Moskva, 1963. 188 p.

(MIRA 18:1)

LAGUNOVA, I.G., prof.; KLIMOVA, M.K., kand. med. nauk

Roentgenological changes in the skeleton in hyperparathyroid osteodystrophy  
and their dynamics in surgical treatment. Vest. rent. i rad. 39 no.4:3-7  
Jl-Ag '64. (MIRA 18:7)

1. Gosudarstvennyy nauchno-issledovatel'skiy rentgeno-radiologicheskiy  
institut Ministerstva zdravookhraneniya RSFSR, Moskva.

LAGUNOVA, I.G.; OBUKHOV, V.A.; KHURAMOVICH, N.I. (Moskva)

On the problem of a rational method of splenoportography  
combined with splenotonometry. Cesk. radiol. 19 no.4/5:  
351-355 Ag '65.

LAGUNOVA, I.G. (Moskva); TSYBUL'SKIY, B.A. (Moskva); KORNEV, I.I. (Moskva)

First experience of treating cancer of the cardial portion of  
the stomach by means of 25 Mev. betatron. Trudy TSentr. nauch.-  
issl. inst. rentg. i rad. 11 no.1:157-164 '64.

(MIRA 18:11)

GOFMAN, I.M. (Moskva); DMOKHOVSKIY, V.V. (Moskva); YERMOLAYEVA, Ye.V. (Moskva); LAGUNOVA, I.G. (Moskva); KHRIMLYAN, A.I. (Moskva)

Reconstruction of a standard 18-bed radiological department meeting the current requirements of medical technology. Trudy TSentr. nauch.-issl. inst. rentg. i rad. 11 no.1:305-310 '64.  
(MIRA 18:11)

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000928420013-2

LAGUNOVA, I.S. (Moskva)

Fluorography and its place in the public health system. Vest.  
rent. i rad. 40 no.3:8-12 My-Je '65. (MIR 18:7)

APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000928420013-2"

KRASAVINA, Ye., nauchnyy sotrudnik; OBREVKO, I., nauchnyy sotrudnik;  
LAGUNOVA, L. nauchnyy sotrudnik

New type of keramzit concrete. Sel'. stroi. 18 no.5:14-15  
My '63. (MIRA 16:6)

1. Nauchno-issledovatel'skiy institut sel'skogo stroitel'stva.  
(Keramzit) (Lightweight concrete)

FAL'KOVICH, Mariya Mikhaylovna; LAGUNOVA, N.V., red.

[The most frequently used words in English; for language institutes. Textbook for students enrolled in courses 1-5 of institutes and schools of foreign languages] Leksiche-skii minimum po angliiskomu iazyku; dlia iazykovykh vuzov. Uchebnoe posobie dlia studentov I-V kursov institutov i fakul'tetov inostrannykh iazykov. Izd. 2. Moskva, Vys-shaia shkola, 1964. 338 p. (MIR 17:7)

YEFIMOV, I.P.; LAGUNOVA, O.D.; MAGDESIYEVA, N.N.; TITOV, V.V.; YUR'YEV, Yu.K.;  
PESHKOVA, V.M.

Determination of the acid dissociation constants of  $\beta$ -diketones  
of the selenophene series. Vest. Mosk. un. Ser. 2: Khim. 18  
no.5:49-53 S-O '63. (MIRA 16:11)

1. Kafedra analiticheskoy khimii Moskovskogo universiteta.

LAGUNOVA, T.P.

White blood picture and erythrocyte precipitation reaction in  
children ill with toxic diphtheria. Vop.okn.mat. i det. l no.4;  
90 Jl-Ag '56. (MIRA 9:9)

1. Iz kafedry detskikh infektsionnykh bolezney Sverdlovskogo gosudar-  
stvennogo meditsinskogo instituta  
(DIPHTHERIA) (BLOOD--EXAMINATION)

LAGUNOVA, T.P.

Role of magnesium sulfate in the compound treatment of toxic diphtheria. Vop. okh. mat. i det. 4 no.3:19-24 My-Je '59.  
(MIRA 12:8)

1. Iz kafedry detskikh infektsionnykh bolezney (zav. - prof. V.S.Dubrova) Sverdlovskogo meditsinskogo instituta (dir. - prof.A.F.Zverev) i difteriynogo otdeleniya (zav. - zasluzhennyi vrach RSFSR S.V.Lomonosov) 3-y infektsionnoy bol'nitsy.  
(DIPHTHERIA) (MAGNESIUM SULFATE--THERAPEUTIC USE)

24.7700

AUTHORS:

TITLE:

Yemel'yanenko, O. V., Lagunova, T. S., Nasledov, D. N.  
Scattering of Carriers<sup>1</sup> in Gallium Arsenide With Strong  
Degeneration<sup>2</sup>

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 2, pp. 192-197

TEXT: In the present paper, the authors report on experimental investigations of the electrical conductivity and the Hall effect of highly alloyed n-type and p-type conductivity, in which the gallium arsenide samples with impurity strongly degenerate. The electron and hole gases, respectively, are a small effective mass ( $m^* \approx 0.05$  m), so that the gallium arsenide have degenerate in a wide temperature range ( $n \geq 5 \cdot 10^{17} \text{ cm}^{-3}$ ,  $n > 1.5 \cdot 10^{18} \text{ cm}^{-3}$ ;  $\mu$  denotes the Fermi level energy. The effective hole

concentration ( $\mu/kT \geq 0$ ) occurs at electron range. At

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Scattering of Carriers in Gallium  
Arsenide With Strong DegenerationS/181/60/002/02/02/033  
B006/B067

centration of the uncompensated impurities in the sample. In the low-temperature range, n-type and p-type conductivity are practically independent of temperature. Above 50-200°K, the carrier mobility decreases with temperature the more, the stronger the sample is alloyed. At T 400-700°K, however, the mobility decrease in non-degenerate samples is stronger than in degenerate ones. At low temperatures, scattering from impurity ions is dominating in all samples, at high temperatures - by lattice vibrations. With increasing carrier concentration, the scattering from the lattice increases. The most important experimental results can be explained by the general theory of carrier scattering in a simple impurity semiconductor. For a qualitative explanation it is sufficient to assume that the velocity of the scattered electrons in strong degeneration is much higher than the mean thermal velocity which they would have in the non-degenerate case, and that it does not depend on temperature. This velocity increases with electron concentration. There are 4 figures, 2 tables, and 7 references: 3 Soviet, 2 American, and 2 British.

X

Card 3/4

CIA-RDP86-000928420013-2

89287

S/181/61/003/001/026/042  
B102/B204

247700 (1043,1143,1469)

AUTHORS: Yemel'yanenko, O. V., Lagunova, T. S., and Nasledov, D. N.

TITLE: Impurity band in p- and n-type gallium arsenide crystals

PERIODICAL: Fizika tverdogo tela, v. 3, no. 1, 1961, 198-203

TEXT: The present paper is a continuation of an earlier paper (Ref. 1) in which high-impurity n- and p-type GaAs specimens have been examined. It had been found that, in these specimens, the carrier concentration does not change with decreasing temperature (from room temperature to  $1.5 - 2^{\circ}\text{K}$ ), and also the electrical conductivity remains nearly constant. In n-type specimens, the activation energy of impurity levels was equal to zero because of the formation of an impurity band overlapping the conduction band, and the electron gas was degenerate. The effective mass of the holes in GaAs is a multiple of the electron mass. Here, data are given on measurements of the Hall constant and the electrical conductivity of p- and n-type GaAs specimens, which are discussed. The measuring method is described in Ref. 1. The specimens were produced from initial substances of high purity (99.99%); the characteristic properties of the

Card 1/6

89287

Impurity band in p- and n-type...

S/181/61/003/001/026/042  
B102/B204

various specimens are given in a table. The results of measurement are shown in Figs. 1 and 2. Within the entire range of measurement ( $2\text{-}600^{\circ}\text{K}$ ), the specimens were within the region of impurity conductivity. The temperature dependence of Hall constant electrical conductivity for p-type GaAs is shown in Fig. 1 and Fig. 2, respectively. In the latter, the slope of the curves is constant from 30 to  $4.2^{\circ}\text{K}$  (the apparent breaks are due to the change in scale). Ge, InSb, and other semiconductors show a similar course of the curves, which is explained on the basis of a hypothesis concerning the mobility in the impurity band (Phys. Rév. v. 96, p. 1226 and v. 99, p. 400). Here, the existence of two types of carriers of the same sign is assumed: ordinary carriers in the conduction or valence band, and such of lower mobility in a band formed by overlapping impurity levels. The Hall constant  $R$  may be expressed as a function of concentration and mobilities of the two types of carriers (1,2):

$R = r_a(u_1^2 n_1 + u_2^2 n_2) / (u_1 n_1 + u_2 n_2)^2$ , where  $n_1 + n_2 = \text{const}$ ; the constant  $r_a$  differs only little from unity. Figs. 3 and 4 show  $R(T)$  and  $\sigma(T)$  for n-type GaAs. The maxima of the  $R(T)$  curves may be explained either on the basis of the above formula for  $u_1 n_1 = u_2 n_2$ , or by a surface conduction

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89287

S/181/61/003/001/026/042  
B102/B204

Impurity band in p- and n-type...

effect. However, the latter cannot explain all the phenomena observed. The slope of the curves with  $T < 30^{\circ}\text{K}$  depends on processes occurring in the impurity band, and at higher temperatures on carrier transitions from the impurity band to the conduction or valence bands. The width of the energy gap between acceptor levels and valence band may be calculated from the slope of the  $R(T)$  curves or (for pure specimens) from the formula  $n_i \sim \exp(-\Delta E_{\text{gap}}/kT)$ . Both methods yielded similar results:

$\Delta E_{\text{gap}} = 0.01 - 0.02$  ev. The gap between donor levels and conduction band was found to be even smaller. Some interesting results were obtained for conductivity; thus, the resistivity of n-type GaAs at low temperatures in a transverse magnetic field does not increase (as is otherwise the case in semiconductors) but decreases. At  $H = 5000$  oe and at helium temperature, the resistivity decrease in some cases attains 0.6 - 0.7%; in the case of pure specimens ( $5300$  oe), even 7.5%; and at  $2.4^{\circ}\text{K}$ , 11%. On p-type specimens, this effect was either very low or did not occur at all. The effect on n-type GaAs cannot be explained by theories available today. There are 5 figures, 1 table, and 4 references: 1 Soviet-bloc and 3 non-Soviet-bloc.

Card 3/6

89287

Impurity band in p- and n-type...

S/181/61/003/001/026/042  
B102/B204

ASSOCIATION: Leningradskiy fiziko-tehnicheskiy institut AN SSSR imeni akad. A. F. Ioffe (Leningrad Institute of Physics and Technology AS USSR imeni Academician A. F. Ioffe)

SUBMITTED: June 22, 1960

Legend to the table: 1) Number and type of conductivity of the specimen;  
 2) impurity, % by weight; 3) carrier concentration; 4) carrier mobility.

№ образцов и тип прово- димости	Примесь, вес. %	Концентрация носителей тока		Подвижность носителей тока $\mu = R_0$ , см <sup>2</sup> /в · сек.
		$n = \frac{1}{eR}$ , см <sup>-3</sup>	3)	
3 p	0.1 Cd	$1 \cdot 10^{10}$		75
4 p	0.01 Zn	$4.5 \cdot 10^{18}$		95
5 p	0.1 Cd	$1.5 \cdot 10^{18}$		140
6 p	0.05 Cd	$4 \cdot 10^{17}$		150
7 p	0.013 Cd	$1.5 \cdot 10^{17}$		220
8 p	0.001 Zn	$1 \cdot 10^{17}$		300
7 n	—	$4.5 \cdot 10^{17}$		3000
8 n	0.001 Se	$2.1 \cdot 10^{17}$		3300
9 n	—	$2.2 \cdot 10^{18}$		3200

Card 4/6

Report presented at the 3rd National Conference on Semiconductor Compounds, Kishinev, 16-21 Sept 1963

2. Electrical properties of highly degenerate crystals of n- and p-type gallium arsenide. O. V. Yemel'yanenko, F. P. Kesamanly, D. N. Nasledov, V. G. Sidorov, G. N. Talalakin.

Concerning the interaction of electrons with lattice vibrations in gallium arsenide. O. V. Yemel'yanenko, T. S. Lagunova, D. N. Nasledov, V. Ye. Shcherbatov.

Electrical properties of gallium arsenide with different impurities. D. N. Nasledov, G. N. Talalakin.

Investigation of the properties of impurity zones in crystals of p-type gallium arsenide. O. V. Yemel'yanenko, T. S. Lagunova, D. N. Nasledov, V. Ye. Shcherbatov.

Galvanomagnetic properties of indium arsenide in a wide temperature range. Yu. M. Burdukov, I. V. Zatova, T. S. Lagunova, D. N. Nasledov.

Nernst effect in n-type indium phosphide. F. P. Kesamanly, E. E. Klotin'. (Presented by O. V. Yemel'yanenko--25 minutes).

ZOTOVA, N.V.; LAGUNOVA, T.S.; NASLEDOV, D.N.

Negative magnetic resistance in n-type indium arsenide at low temperatures. Fiz. tver. tela 5 no.11:3329-3331 N '63.

l. Fiziko-tekhnicheskiy institut imeni A.F.Ioffe AN SSSR, Leningrad.  
(MIRA 16:12)

BURDUKOV, Yu.M.; YEMEL'YANENKO, O.V.; ZOTOVA, N.V.; KESAMANLY, F.P.;  
KLOTYN'SH, E.E.; LAGUNOVA, T.S.; NASLEDOV, D.N.; SIDOROV, V.G.;  
TALALAKIN, G.N.; SHCHERBATOV, V.Ye. [deceased]

Transfer effects in A<sup>III</sup>B<sup>V</sup> type compounds. Izv. AN SSSR. Ser.  
fiz. 28 no.6:951-958 Je '64. (MIRA 17:7)

1. Fiziko-tehnicheskiy institut imeni A.F. Ioffe AN SSSR.

L 20349-65 ENT(1)/EWG(k)/EWT(m)/T/EWP(t)/EMP(b)/EWA(h) Ps-6/Peb IJP(e)/SSD/  
AFWL/ASD(a)-5/AS(mp)-2/APETR/RAEM(s)/ESD(gs)/ESD(t) JD/AT  
ACCESSION NR: AP4041353 S/0048/64/028/006/0951/0958

AUTHOR: Buryukov, Yu.N.; Yemel'yanenko, O.V.; Zotova, N.V.; Kesamanly, F.P.; Kloty-  
n'sh, E.E.; Legunova, T.S.; Sidorov, V.G.; Talalakin, G.N.; Scherbatov, V.Ye.  
(Deceased); Nasledov, D.N. (Doctor of physico-matematical sciences)

TITLE: Investigation of transfer effects in  $\text{Al}_{\text{III}}\text{B}_\text{V}$  type compounds Report, Third  
All-Union Conference on Semiconductor Compounds held in Kishinev 16-21 Sep 1963

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.6, 1964, 951-958

TOPIC TAGS: semiconductor, semiconductor research, semiconductor band structure,  
Hall effect, Nernst Ettinghausen effect, electric conductivity, gallium arsenide,  
indium arsenide, indium phosphide

ABSTRACT: The present paper is a review of the results of experimental studies of  
transfer effects in  $\text{Al}_{\text{III}}\text{B}_\text{V}$  type compounds, specifically, gallium arsenide, indium  
arsenide and indium phosphide, with emphasis on the first. The work of other auth-  
ors, Soviet and non-Soviet, is referred to, but for the most part the data and dis-  
cussion are based on investigations by the authors' group. The main purpose of these  
studies was to investigate the energy spectrum and characteristics of the impurity

Cord 1/3

L 20349-65  
ACCESSION NR: AP4041353

band (zone) and elucidate the mechanism of electron scattering in these semiconductor compounds. The assumed band structure of GaAs is described. Extensive measurements were made of the thermo-emf of the compounds in order to investigate the structure of the allowed bands. Data and curves are given for the dependence of the effective electron mass on the carrier concentration in the crystal, the temperature dependence of the Hall constant, the temperature dependence of the height of the Fermi level, the temperature dependence of the relative resistivity increment ( $\Delta\rho/\rho$ ) in a magnetic field, the Nernst-Ettinghausen effect, all for n-type GaAs; the dependence of the hole mass on the hole concentration in p-type GaAs; the temperature dependence of kinetic effects in InP; the temperature dependences of the Hall constant and  $\Delta\rho/\rho$  and the field dependence of  $\Delta\rho/\rho$  for n-type InAs. The mechanism of interaction of electrons with lattice vibrations in gallium arsenide and indium arsenide is discussed. Impurity effects are considered and various models are evaluated from the standpoint of their agreement with experiment and practical utility. Orig.art.has: 5 formulas and 9 figures.

Card 2/3

L 20349-65  
ACCESSION NR: AP4041353

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR  
(Physicotechnical Institute, Academy of Sciences, SSSR)

SUBMITTED: 00

SUB CODES: SS, EM

NO. REF Sov: 008

ENCLs: 00

OTHERs: 006

Card 3/3

ACCESSION NR: AP4019873

S/0181/64/006/003/0958/0960

AUTHORS: Kosamanly\*, F. P.; Klotynish, E. E.; Lagunova, T. S.; Nasledov, D. N.

TITLE: The impurity band in crystals of n type InP

SOURCE: Fizika tverdogo tela, v. 6, no. 3, 1964, 958-960

TOPIC TAGS: crystal, Hall constant, electron concentration, semiconductor band structure

ABSTRACT: This is a continuation of investigation in support of previous work (F. P. Késamanly\*, E. E. Klotynish, Yu. V. Mal'tsev, D. N. Nasledov, and Yu. I. Ukhakov, FTT, 6, 134, 1964), indicating that the increase in Hall constant in n-type InP with decrease in temperature below 200K is due to conduction in the impurity band. One of the consequences of an impurity band in a crystal is a maximum on the curve showing temperature dependence of the Hall constant. Investigation in the region of 2-300K of n-type InP with electron concentration of  $8.2 \cdot 10^{16} \text{ cm}^{-3}$  has shown that the Hall constant increases as T declines down to 40-50K and then reaches a maximum, after which it begins to decline till the

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ACCESSION NR: AP4019873

temperature reaches 10K. Below this temperature the Hall constant is again independent of temperature. That this maximum is due to conduction in the impurity band is indicated by the fact that the same maximum is observed at similar electron concentrations in n-type GaAs, for which this conduction in the impurity band has been demonstrated. Comparisons with results on InAs, InSb, and Ge also support this conclusion. "The authors thank O. V. Yemel'yanenko for valuable discussions of the results." Orig. art. has: 2 figures.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe AN SSSR, Leningrad (Physicotechnical Institute AN SSSR); Institut fiziki AN AzSSR, Baku (Institute of Physics AN AzSSR)

SUBMITTED: 15Nov63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: EO

NO REF Sov: 004

OTHER: 001

Cord 2/2

I-4073-66 EWT(1)/T LJP(c) GG  
ACC NR. AP5025778

SOURCE CODE: UR/0363/65/001/009/145,1/1461  
49

AUTHOR: Burdukov, Yu. M.; Voronina, T. I.; Yemel'yanenko, O. V.; Lagunova, T. S.  
5544 5544 3544 3544 3544 3544  
ORG: Physicotechnical Institute im. A. F. Ioffe, Academy of Sciences, SSSR (Fiziko-  
tekhnicheskiy institut, Akademii nauk SSSR) 5544

TITLE: Distribution of impurities in gallium arsenide single crystals grown by the  
Czochralski method  
55 27 127 14

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 9, 1965,  
1459-1461

TOPIC TAGS: gallium arsenide, tellurium, doped gallium arsenide, impurity  
conductivity

ABSTRACT: A study has been made of the distribution of Te dopant and contaminants  
in semiconductor Te-doped GaAs single crystals grown by the Czochralski method. The  
experiments consisted of determining electrical conductivity and the Hall constant in  
specimens cut out from ingots perpendicularly to their longitudinal axis. From these  
data the carrier concentration and mobility and their distribution along and across  
the ingots were calculated. It was shown that the distribution of Te in ingots, as  
determined from electron concentration and electrical conductivity, is not uniform.  
It increases from the top to the bottom of the ingot by a factor of 3 to 5, and from  
the periphery of the ingot to its center by 20 to 40%. The concentration of contami-

Card 1/2

UDC: 546.681'191:548.55

L 4073-66

ACC NR: AP5025778

inants, as determined from carrier mobility, increases toward the bottom of the ingots faster than that of Te. The nature and penetration course of contaminants in the melt remained unclear. One of the most probable contaminants is Si, which forms acceptor-donor pairs and is a quartz decomposition product. It is concluded that every doped GaAs ingot intended for industrial application should be subjected to individual homogeneity control. Orig. art. has: 3 figures.

[B0]

SUB CODE: SS, EM/ SUBM DATE: 15May65/ ORIG REF: 001/ OTH REF: 004/ ATD PRESS;  
1127

BVK  
Card 2/2

L-5853II-65	EWT(1)/EWT(m)/EWP(b)	/EWP(t)	IJP(c)	JD	
ACCESSION NR:	UR/0181/65/007/005/1315/1323				
AUTHOR:	Yemel'yanenko, O. V.; Legunova, T. S.; Nasledov, D. N.; Talalakin, G. N.				
TITLE:	Formation and properties of the impurity band in n-GaAs				28
SOURCE:	Fizika tverdogo tela, v. 7, no. 5, 1965, 1315-1323				27
TOPIC TAGS:	gallium arsenide, impurity band, carrier mobility, electric resistivity, Hall effect, magnetic resistance				$\beta$
<p><i>21</i></p> <p>ABSTRACT: An attempt is made to determine the energy position, width, and other parameters of the impurity band in n-type gallium arsenide with donor concentration <math>5 \times 10^{15}</math>-<math>5 \times 10^{17} \text{ cm}^{-3}</math>, by experimentally investigating the Hall effect and the electric conductivity at low temperatures (2-300K). Both undoped and doped single crystals with shallow levels were investigated. Reduction of the experimental data within the framework of a simple semiconductor model with two types of carriers of the same sign indicates that an impurity band exists and that its width is <math>\sim 0.002</math> eV; the distance between the ground and impurity bands is <math>0.001</math>-<math>0.002</math> eV. An expression is derived for the carrier mobility in the impurity band and the variation of the resistance in a transverse magnetic field is plotted. The results obtained</p>					
Card 1/2					

11-11-65 ACCESSION NR: AP5012575	on the negative magnetic resistance agree with the theory of Y. Toyozawa (J. Phys. Colloids 17, 986, 1962). Orig. art. has: 8 figures, 6 formulas, and 1 table.	Institute of Metal Physics (MSS), Leningrad
SUBMITTED: 05Sep64	ENCL: 00 OTHER: 007	SUB CODE: S9, EM
MR REF Sov: 005		
Card 2/2		

BURDUKOV, Yu.M.; VORONINA, T.V.; YEMEL'YANENKO, O.V.; LAGUNOV, T.F.

Distribution of impurities in single crystals of gallium arsenide  
grown by the Chashchal'skiy method. Izv. AN SSSR. Ser. fiz.,  
no.9:1459-1461 S '65. (Mish 18-11)

1. Fiziko-tehnicheskiy institut imeni Ioffe AN SSSR.

L 69932-67 IJP(c) MM  
ACC NR: AP6034922

SOURCE CODE: GE/0030/66/017/001/0105/0108

AUTHOR: Aliev, S. A.; Kesamanly, F. P.; Lagunova, T. S.; Nasledov, D. N.

ORG: [Kesamanly; Lagunova; Nasledov] A. F. Ioffe Physico-Technical Institute,  
Academy of Sciences of the USSR, Leningrad; [Aliev] Institute of Physics,  
Academy of Sciences of the Azerbaijan SSR, Baku

TITLE: Hall effect and magnetoresistance of n-InP crystals at low temperatures

SOURCE: Physica status solidi, v. 17, no. 1, 1966, 105-108

TOPIC TAGS: Hall effect, magnetoresistance, temperature dependence, Hall constant, electric conductivity, impurity band, impurity conductivity, indium phosphide crystal

ABSTRACT: A study was made of the temperature dependence of the Hall constant  $R(T)$ , the electrical conductivity  $\sigma(T)$ , and the magnetoresistance  $\Delta\sigma/\sigma(T)$  between 1.7 and 300K in n-indium phosphide specimens with electron concentrations from  $2 \times 10^{16}$  to  $10^{18} \text{ cm}^{-3}$ . A maximum was observed in  $R(T)$  in the temperature range 20–100K;  $\Delta\sigma/\sigma$  was negative in all specimens below the maximum temperature of  $R(T)$ . The results are explained by the participation of the impurity

Card 1/2

"APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000928420013-2

L 09932-67

ACC NR: AP6034922

band in conduction. Orig. art. has: 5 figures and 1 table. [Authors' abstract]

SUB CODE: 20 / SUBM DATE: 15Jun66 / ORIG REF: 002 / OTH REF: 002 /

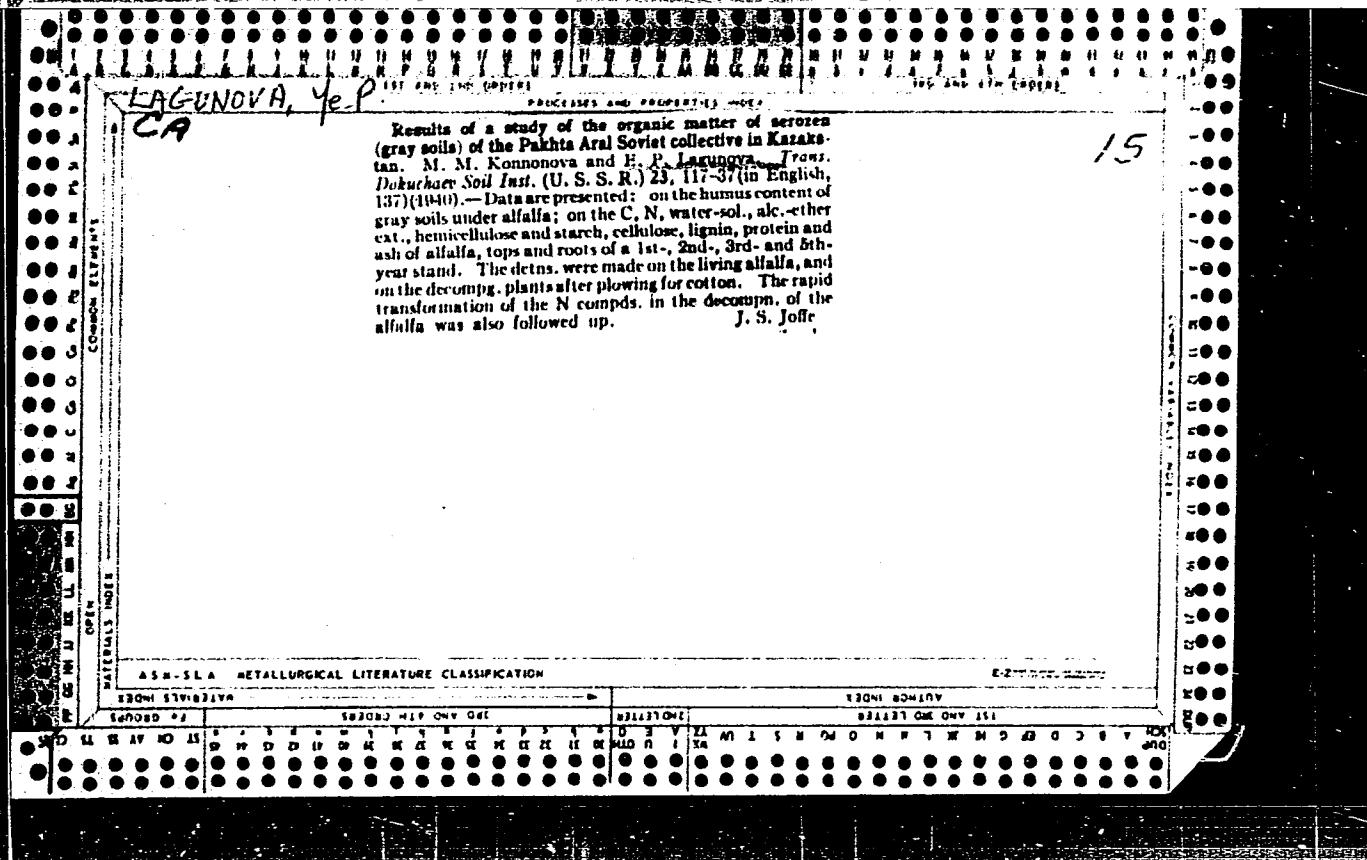
APPROVED FOR RELEASE: 06/20/2000

CIA-RDP86-00513R000928420013-2"

PEKELIS, G.B., dotsent; KASATKIN, I.I.; ARONOV, I.Z., starshiy nauchnyy sotrudnik; PRESICH, G.A.; SOLODOVNIKOVA, Ye.N.; VINIK, I.A.; FUKSON, F.I.; LAGUNOVA, V.D., inzh.-khimik

Experience in the application of contact water heating.  
Tekst. prom. 25 no.9:71-76 S '65. (MIRA 18:10)

1. Belorusskiy politekhnicheskiy institut (for Pekelis).
2. Glavnyy spetsialist Gosudarstvennogo komiteta Soveta Ministrov BSSR po koordinatsii nauchno-issledovatel'skikh rabot (for Kasatkin).
3. Nauchno-issledovatel'skiy institut sanitarnoy tekhniki UkrSSR (for Aronov).
4. Starshiy inzh. Nauchno-issledovatel'skogo instituta sanitarnoy tekhniki UkrSSR (for Presich, Solodovnikova).
5. Rukovoditel' prudy Belpromprojekta (for Vinik).
6. Nachal'nik kotel'noy Minskogo kamvol'nogo kombinata (for Fukson).
7. Minskiy kamvol'nyy kombinat (for Lagunova).



*✓ LAGUNOVA, Ye.P.*

The role of roots in the amelioration of solonetz soils.  
E. P. Lagunova, *Priroda* (U.S.S.R.) No. 1, 28-40  
(1952).—Roots have been septd. from dry solonetz soil to  
avoid leaching of salts from the org. matter when the wet  
method of sepg. roots is followed. The soil adhering to the  
roots is removed by dipping the root mass in bromoform.  
These roots are placed in pots filled with solonetz soil and  
the rate of decompo. is followed by the CO<sub>2</sub> released. Since  
natural amelioration is a long process, owing to low supply  
of roots in solonetz soils, a series of increments of roots is  
incorporated in the soil material, varying from the natural  
supply up to 10 times that. As a result of the humification  
and mineralization of the roots the following changes have  
been observed: (1) The adsorbed Na has decreased from 39.8  
to 23.3% while the exchangeable Ca has increased, pri-  
marily as a result of the release of Ca from the CaCO<sub>3</sub> and  
from the mineralization of the org. matter. (2) The sta-  
bility of aggregates has increased. (3) There was an in-  
crease in the silt fraction. (4) The percolation was en-  
hanced.

J. S. Joffe

LAGUNOVA, Ye. P.

Features of humus formation in irrigated Sierozem soils of the  
Samarkand oasis [with summary in English]. Pochvovedenie no.8:59-68  
Ag '58.  
(MIRA 11:9)

1. Pochvennyy institut im. V.V. Dokuchayeva AN SSSR.  
(Zeravshan Valley--Humus)

LAGUNOVA, Ye.P.

Fertility of genetic soil horizons in the trans-Volga region  
and methods for its reestablishment. Pochvovedenie no. 7:  
87-95 J1 '65  
(MIRA 19:1)

1. Pochvennyy institut imeni V.V. Dokuchayeva, Moskva. Sub-  
mitted April 16, 1964.

ACC NR: AP7011368

SOURCE CODE: UR/0118/66/000/010/0031/0035

AUTHOR: Krasik, Ya. L. (Engineer); Rappoport, L. I. (Engineer); Lagunovich,  
Ye. F. (Engineer); Kirichenko, B. M. (Engineer)

ORG: none

TITLE: Sparkless transistorized logic elements for coal mines

SOURCE: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 10, 1966,  
31-35

TOPIC TAGS: logic element, mining machinery, industrial automation

SUB CODE: 13,09

ABSTRACT: The use of electromagnetic relays as commutating elements in automatic control equipment in coal mines has several drawbacks: low reliability in conditions of dust and high humidity, great danger of sparking from the equipment, high cost due to wear on certain parts. These drawbacks can be avoided by replacing the electromagnetic relays with contactless commutating logic elements, which can be in the form of semi-conductors, ferrites, square hysteresis loops, etc. Tests have shown that the AND-OR, MEMORY, and TIME logic elements possess the greatest capacity with the least danger of sparking. The AND-OR element consists of a diode-rheostat circuit. The number of inputs

UDC: 621.382.3:622.25

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Card 1/2

ACC NR: AP7011368

can be increased by joining the elements without changing the structure of the circuit. The MEMORY element consists of a static transistor trigger. It has a high static and dynamic reliability during large fluctuations of temperature. The TIME element is design to maintain the incoming signals for a given period of time. The basic component is an integrating RC circuit included in feed-back circuit with a "binistor" (a circuit having the negative part of the volt-ampere curve) at its output. These logic elements have been tested and found to operate satisfactorily in temperatures ranging from -40° to +60°C. Orig. art. has: 6 figures and 1 table. JPRS: 40,352

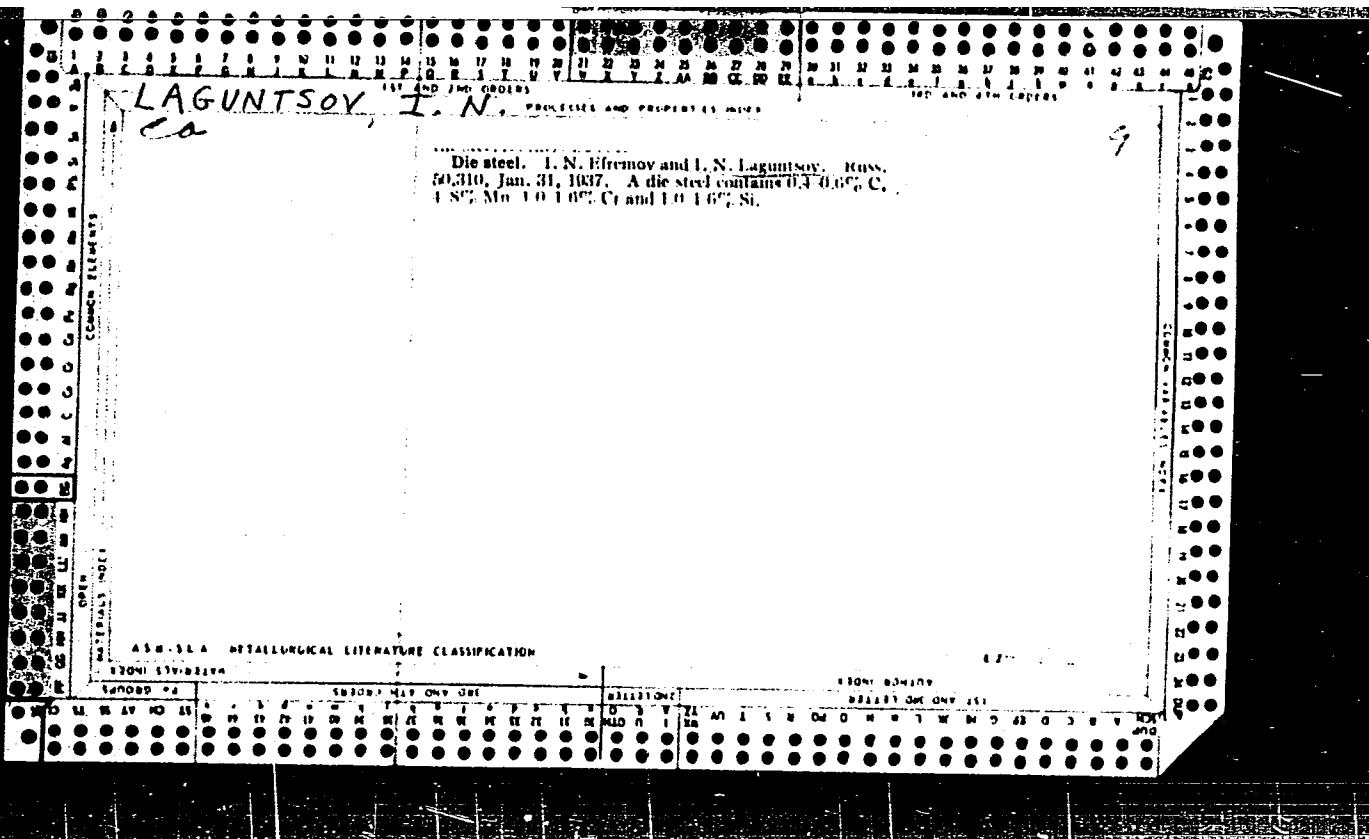
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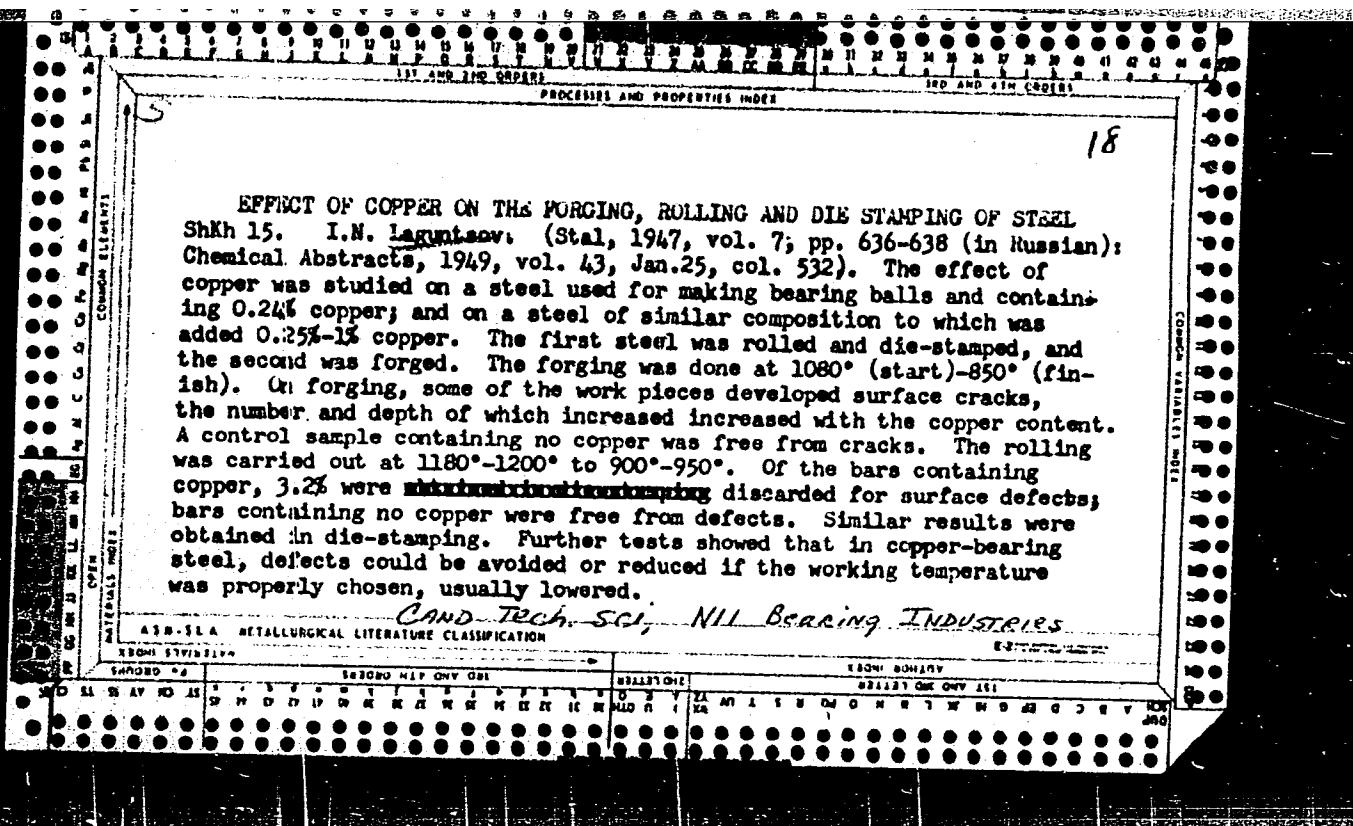
LAGUNOVSKIY, Matvey Ignat'yevich;UKSUSOV, D., red.; YERMOLENKO, V.,  
tekhn. red.

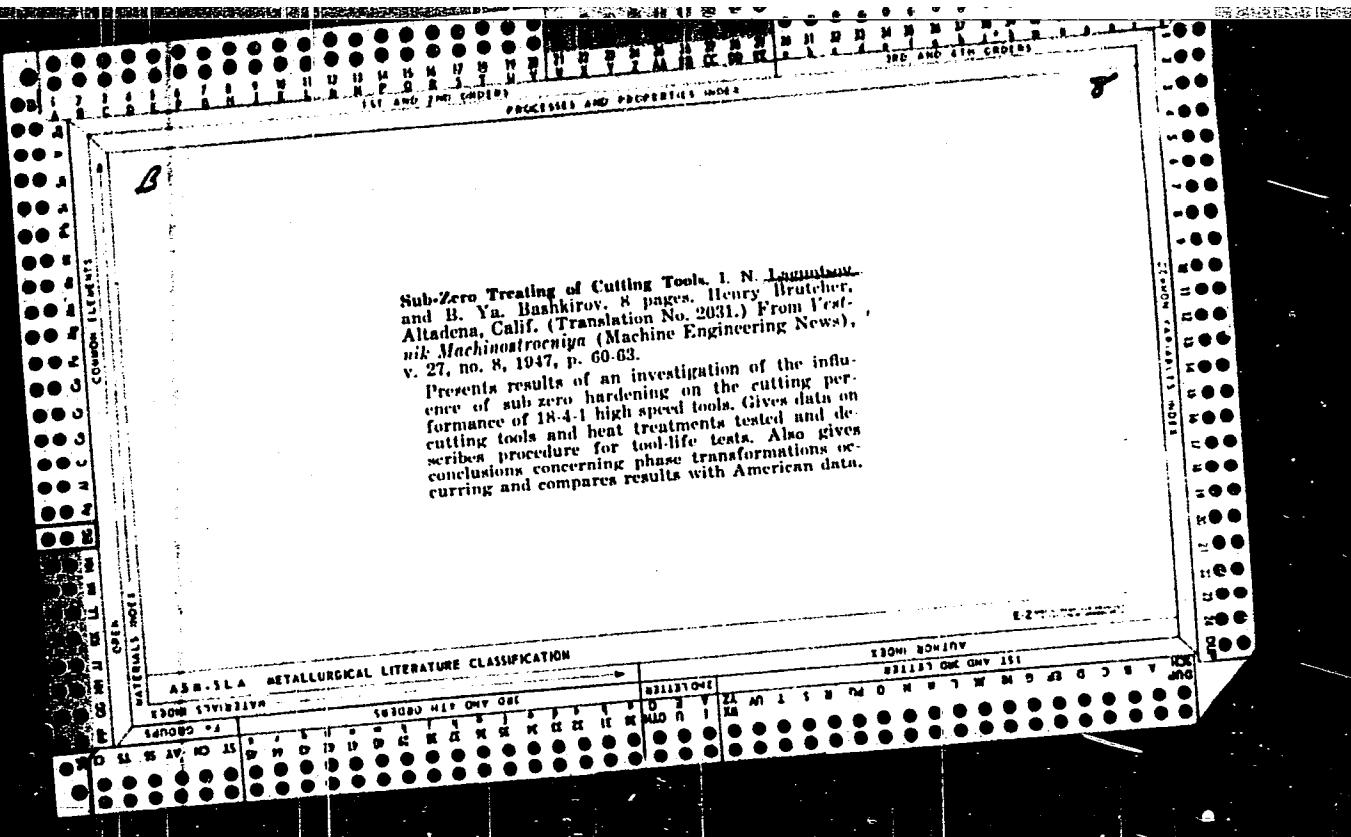
[Party organization and the mass-introduction of technological innovations] Partorganizatsiya i massovoe tekhnicheskoe tvorches-  
stvo. Minsk, Gos.izd-vo BSSR, 1962. 44 p. (MIRA 15:12)

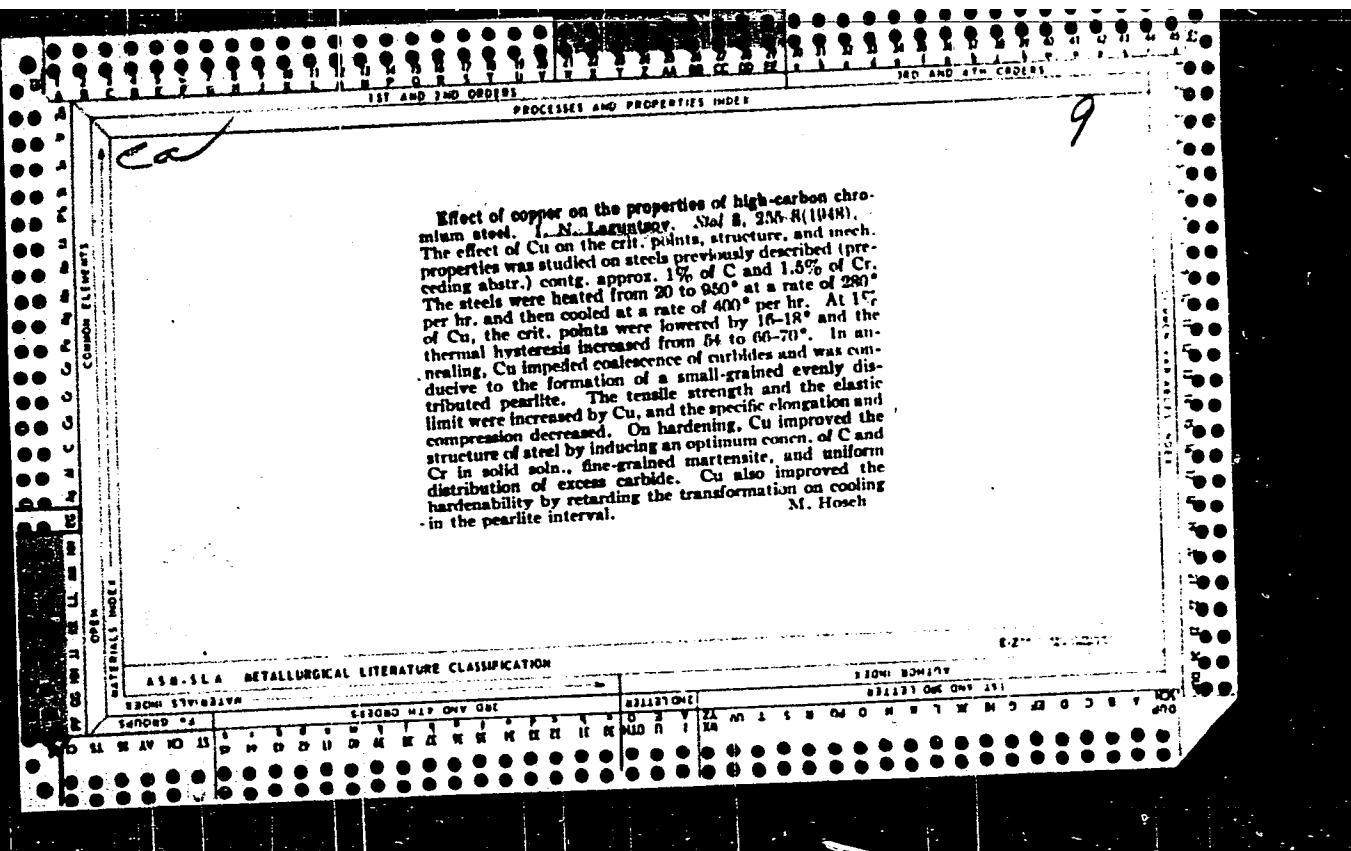
1. Sekretar' partiynogo komiteta Minskogo motovelozavoda (for Lagunovskiy).

(Minsk—Motorcycle industry) (Minsk—Bicycles and tricycles)  
(Communist Party of the Soviet Union—Party work)









LAGUNTSOV, I. N.  
PHASE I Treasure Island Bibliographical Report

AID 202 - I

Call No.: TM672.53

## BOOK

Authors: SAMOKHOTSKIY, A. I. and LAGUNTSOV, I. N.

Full Title: TECHNOLOGY OF THERMAL TREATMENT

Transliterated Title: Tekhnologiya termicheskoy obrabotki

## Publishing Data

Originating Agency: None

Publishing House: State Scientific Technical Publishing House of Literature  
on Machine Building

No. pp.: 376

No. Copies: 10,000

Date: 1950

## Editorial Staff

Editor: Kunyavskiy, M. N., Cand. Eng. Sci.

Ed.-in-Chief: Beyzel'man, P. D., Eng.

Tech. Ed.: None

Appraisers: Gulyayev, A.P.,

Prof., Dr. Eng. Sci.;  
Lakhtin, Yu.M., Cand. Eng. Sci.

Others: Assonov, A. D. Laureate of the Stalin  
Prize, Cand. Eng. Sci., and Yasnogoradskiy, I. Z., Laureate of the  
Stalin Prize, Eng.

## Text Data

Coverage: The textbook presents recent theories of thermal and thermo-chemical  
treatments of metals. The authors introduce the general metallurgical  
and metallographic principles involved in the processes of thermal  
treatment of metals. In addition to the conventional processes of  
annealing, tempering and hardening, chemical treatments such as cemen-

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Tekhnologiya termicheskoy obrabotki

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tation, nitrogentation, cyanidation and diffusional metalizing are discussed with metallographic illustrations and descriptions of equipment and procedures. The technique of thermal treatments of different tractor parts, tools (cutters, drills, milling cutters, punches, stamps, etc.), measuring instruments, grey and white cast iron, nonferrous alloys, wires, tubes and sheets are explained.

The book represents a compact assembly of essential information on the broad fields of application of thermal treatments of metals, with much data on Soviet practice. The book seems to be of interest from the viewpoint of practical information, since it is a collection of data which usually are scattered among many American books.

Purpose: A textbook approved by the department of Educational Institutions of the Ministry of the Automobile and Tractor Industry for the students of machine-building and technical schools.

Facilities: Part of the material was taken from the books Metallovedeniye and Termicheskaya obrabotka stali by Prof. A. P. Gulyayev (1948)

No. of Russian and Slavic References: None

Available: Library of Congress

2/2

LAGUNTSOV, I. N., SHEYN, A. S.

Bearings (Machinery)

Effect of quality of steel on the functioning of bearings. Podshipnik, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, October, 1952.  
Unclassified.

AID P - 4959

Subject : USSR/Engineering

Card 1/2 Pub. 110-a - 8/21

Author : Laguntsov, I. N., Kand. Tech. Sci.

Title : Experience in using austenitic steels for a boiler using steam of 600°C and 300 atmospheres in the Heat and Electric Power Plant of VTI (All-Union Heat Engineering Institute).

Periodical : Teploenergetika, 8, 39-43, Ag 1956

Abstract : The heat-resistant EI-257 austenitic steel and its tendency to intercrystalline corrosion in long-time contact with the condensate are here discussed, the corrosion cracking under stress and the thermal fatigue at cyclic changes of temperatures are also discussed. In continuous use the friability of EI-257 steel increases because of aging. On the basis of tests of austenitic steels performed in the All-Union Heat Engineering Institute and described here, recommendations are made. 5 illustrations, 7 tables.

Teploenergetika, 8, 39-43, Ag 1956

AID P - 4959

Card 2/2 Pub. 110-a - 8/21

Institution : All-Union Heat Engineering Institute

Submitted : No date

LAGUNTSOV, I. N.

p.2

(18)7

PHASE I BOOK EXPLOITATION

SOV/1978

ORGRES, trust, Moscow, Byuro tekhnicheskoy informatsii

Metall v sovremennykh energoustanovkakh (Metals in Modern Power Plants) Moscow, Gosenergoizdat, 1958. 75 p. 4,150 copies printed.

Eds.: M.S. Aronovich, Candidate of Technical Sciences, I.K. Korikovskiy; Tech. Ed.: G.Ye. Larionov.

PURPOSE: This collection of articles is intended for designers and process engineers in plants building machinery for power stations.

COVERAGE: Materials for these articles were compiled from investigations carried out at the Otdeleniye metallov Vsesoyuznogo teplo-tekhnicheskogo nauchno-issledovatel'skogo instituta imeni F.E. Dzerzhinskogo (Department for Metals of the All-Union Heat Engineering Scientific Research Institute imeni F.E. Dzerzhinskiy) from 1950-1955. The following staff members of the Department for

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